



*The Computer Characteristics Review*  
*The Computer Display Review*

M E M O

FROM: Carl J. Turley, Circulation Manager  
TO: Y O U  
RE: COMPUTER CHARACTERISTICS REVIEW

A comprehensive, complete, and compact computer manual filled with facts concerning 500 processors, thousands of associated peripherals, and all prices. Now in its tenth year.

Sound like something you'd like to carry in your pocket? It fits. The enclosed brochure will lead you to it.

CJT

Would you like one computer manual to keep you up-to-date on all central processors and peripheral devices?

Would you like one manual to objectively compare all characteristics, prices and manufacturers?

Would you like one manual that fits in your pocket and is up-dated three times a year?

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Introducing the  
**Computer Characteristics Review**  
the most comprehensive and  
complete computer manual in  
the world today.



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**What's It All About?** The *Computer Characteristics Review* is all about computers. *Everything* about them.

Now in its tenth year of publication, the *Review* lists the important price and performance characteristics of over 350 central processors and more than 1,000 peripheral devices.

Included are auxiliary storage systems, magnetic tape devices, card and paper-tape equipment, line printers and display consoles. Plus the products and addresses of every manufacturer in the free world.

The *Review* is 3¾" by 7", soft-covered, and fits easily into your pocket. Each issue contains about 250 pages of well-organized information. Every four months a new issue is published with up-dated information.

**Who Publishes It?** The *Computer Characteristics Review* is published by Keydata Publications, a Division of Keydata Corporation in Watertown, Massachusetts.

Keydata has been a pioneer in the field of on-line time-shared computer services. This is one of the Corporation's main activities.

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- computer consulting and programming for clients in industry, government and education.
- specialized programming courses, seminars and workshops.
- technical publications which are regarded as the most comprehensive and up-to-date in their fields. One is the *Computer Characteristics Review*, the other is the *Computer Display Review*.

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Subscribers have titles such as Engineer, Programmer Marketing V.P., Systems Analyst. Many university people—faculty and students—also make use of the *Review*.

If you are selecting equipment for business or scientific use, the three categories of comparative information can be a great help:

- (1) A where-used matrix showing available standard interfaces linking processors and peripherals, regardless of manufacturer.

- (2) A listing of computers by system configuration, showing the monthly rental for basic card, tape and secondary storage systems.
- (3) Tables showing application areas in which central processors are generally used.

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**Sample Pages Inside:** Inside this booklet are a few pages taken from a previous issue of the *Review*. The Table of Contents shows you exactly what is included. On each page the facts about the manufacturer, characteristics and prices are well-organized for quick comparison.

*The Computer Characteristics Review is the most comprehensive and complete computer manual in the world today.*

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**keydata**  
CORPORATION

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## CENTRAL PROCESSORS

Price Range Monthly in Thousand Dollars	First Delivery Month and Year	Processor Speed Complete Add Time in Microseconds	Storage Cycle Time in Microseconds	Accumulators	Internal Storage Capacity in Thousand Words	Word Size	Floating-Point Precision	Overlap	Instruction Set Address Size	Operation Codes	Indirect Addressing	Index Registers	Extensiveness †	Time-Sharing ‡
155-300	1/69	.275	.275	8	65 <sup>D</sup>	48		✓	30	81	8	XBE		XP

D. In addition, there is 512K of 1760 nanoseconds per cycle large core memory used for data. Eight words are read simultaneously each reference. X.

HONEYWELL H632	2.2	1.7	16	8-131	50	16	144 <sup>s</sup>	7	XE	
	1/69	.85		32b	4					CIM

P. Optionally expandable to 16 channels. T. 4131, 4132, 4140, 4141,

IBM 360/65, 67	34-100	1.3 <sup>A</sup>	16	131-1048 <sup>D56</sup>	24	—	ALL	
	3/66	.75 <sup>B</sup>		1a <sup>B</sup>	— <sup>G</sup>	139 <sup>J</sup>	— <sup>L</sup>	XAP <sup>N</sup>

A, L, V. See 360/25. B. Per eight bytes. D, S, T. See 360/50. E. See 360/20. G. Overlap available on Model 67. J. 144 for Model 67. N. Dynamic page relocation on Model 67. R. 2303 also available. U. See

## AUXILIARY STORAGE

Unit Rental Monthly	Type	Character Size	Sectors Number per Track Capacity per Sector in Characters	Tracks (Bands) Number per Cylinder Number per Unit Capacity per Track in Thousands of Characters	Unit Capacity in Millions of Characters	Access Time Seek Time in Milliseconds Minimum — Maximum	Rotational Time in Milliseconds	Parity	Transfer Rate Thousands of Characters per Second
1700	F	48	32 <sup>D</sup>	150	7.68 <sup>H</sup>	9.6	—	✓	100
			240	1200			40		

D. For middle zone; 24 and 44, respectively, for inner and outer zones. H. For middle zone; 5.76 and 10.56, respectively, for inner and outer zones.

Input-Output Number of Channels	Transfer Rate	Auxiliary Storage Fixed Head	Movable Head	Magnetic Tape	Peripheral Devices Card Reader	Card Punch	Printer	Paper-Tape Reader	Paper-Tape Punch	Software Algebraic Compiler	Monitor §	Business Compiler
15	180M	—	7638-1	—	407-1	517-1	—	—	—	— <sup>x</sup>	G	*
					417-1	—						

Available first quarter 1970.

8 <sup>P</sup>	200K	4600	4130 <sup>T</sup>	5100 <sup>U</sup>	7050	5000	5000	✓	—
				5200	5000			R	

4142 also available. U. 5150 also available.

4	1.2M	2301 <sup>R</sup>	2401 <sup>T</sup>	2520 <sup>U</sup>	1443 <sup>V</sup>	—	✓	✓
		2311 <sup>S</sup>		2520 <sup>U</sup>	2671		GR <sup>Y</sup>	

360/30. Y. Time-sharing monitor available on Model 67. Note, Multi-processor capability available for both models. Rental for model 67 is 45-150K.

## MAGNETIC TAPE

Unit Rental Monthly	Transfer Rate Thousands of Characters per Second — Range	Speed in Inches per Second	Dimensions Density in Bits per Inch	Tracks	Width in Inches	Interrecord Gap in Inches	Read Reverse	Control Unit Monthly Rental	Number of Devices
NCR 333/101, 102	975 <sup>A</sup>	83-120 <sup>B</sup>	150	200	7	.5	.75	—	1
				556				— <sup>J</sup>	
				800					

A. 825 for 333/102. B. 30-83 for 333/102. J. See 332/204.

## DEVICE INTERFACE CHARTS

	Auxiliary Storage										Magnetic Tape									
	Bryant 185000 Series	Burroughs B475	Burroughs 9970	CDC 832	Data Disc F6	Data Products 5025	Digital Development 7300 Series	NGR 655	SDS 7201, 7211	Univac FH390, FH880	Vermont Research Drums	Ampex TM 7, 9, 11, 12, 16	Burroughs B420 Series	CDC 607	Datamarc D2020, D3030	Midwestern 4000 Series	Porter 906 Mark II	Porter MT Series	SDS 7300 Series	
10. PDS 1020																				
11. Philco 2000 Series																				
12. PRODAC 50, 500																				
13. PRODAC 250																				
14. Raytheon 520																				
15. Redcor RC-70					*					*		*								
16. Scientific Data CE16, CF16																				
17. Spiras 65								*				*								
18. Varian Data 520 I												*								
19. Varian Data 620 I					*	*						*								
20. ICL Leo 326, 360																				

## SYSTEM CONFIGURATIONS

### BASIC SECONDARY STORAGE SYSTEM

Central processor: 16,000 words or 64,000 bytes of memory. Card reader: 800-1,000 cards per minute. Card punch: 250-300 cards per minute. Line printer: 700-1,000 lines per minute. Four magnetic tape units: 60kc-90kc. Secondary storage: 7-10 million bytes.

Ambilog 200	10,835*
Burroughs B2500	10,560
Burroughs B3500	11,360
Burroughs B5500	21,170
Burroughs B6500	24,890
Control Data 3100	13,410
Control Data 3300	14,010
Control Data 3600	20,510
Control Data 3800	21,420
Control Data 6600	53,920

## APPLICATIONS

	REAL-TIME	
	Minimum Monthly Rental	First Delivery Date
Central Processor		
ADAGE		
Ambilog 200	—	Aug. 64
BECKMAN		
420*	2,200	Jun. 64
BIT		
480	240	Dec. 66
COLLINS		
C-8500	2,500	Jan. 67
COMPUTER AUTOMATION		
208	190	Jun. 69
216	320	Jul. 69
808	160	Apr. 68
816	270	Dec. 68
CONTROL DATA		
1700	1,100	Mar. 66
8090	—	Jul. 64
8092	—	64

## INTERNAL STORAGE CHARACTERISTICS

### BITS PER MICROSECOND

Bits per Micro-second	Central Processor	Cycle Time (in micro-seconds)	Bits per Cycle
218.18	CONTROL DATA 7600	0.275	60
123.07	IBM 360/85	1.04	128
88.33	IBM 360/65, 67	0.75	64
88.33	IBM 360/75	0.75	64
88.33	IBM 360/90*	0.75	64
80.00	BURROUGHS B6500, B7500	0.6	48
72.00	GENERAL ELECTRIC 635, 645	1.0	72
64.00	HONEYWELL 200/8200	0.75	48
60.00	CONTROL DATA 6400	1.0	60
60.00	CONTROL DATA 6500	1.0	60
60.00	CONTROL DATA 6600	1.0	60
54.80	CONTROL DATA 3800	0.88	48
53.38	TELEFUNKEN TR40	0.9	48
48.00	UNIVAC 1108 II	0.75	36
40.00	DATACRAFT DC-6024	0.6	24
40.00	UNIVAC 494	0.75	30
39.13	FUJITSU FACOM 230/60	0.92	36
38.00	HITACHI HITAC 8500	0.84	32
38.00	RCA SPECTRA 70/55	0.84	32
38.00	SIEMENS 4004/55	0.84	32

## DIRECTORY OF MANUFACTURERS

### DIGITAL EQUIPMENT

Digital Equipment Corporation  
146 Main Street  
Maynard, Massachusetts 01754

### DIGITRONICS

Digitronics Corporation  
Albertson Avenue  
Albertson, New York 11507

### DRC

Dynamics Research Corp.  
38 Montvale Avenue  
Stoneham, Massachusetts 02180

### EAI

Electronic Associates, Inc.  
West Long Branch  
New Jersey 07764

### EMR

EMR Computer Division  
8001 Bloomington Freeway  
Minneapolis, Minnesota 55420

### GENERAL AUTOMATION

General Automation Inc.  
Automation Products Division  
706 West Katella  
Orange, California 92667

### GENERAL ELECTRIC

Information Systems  
13430 N. Black Canyon Highway  
Phoenix, Arizona 85029

Process Computer Department  
Post Office Box 2918  
Phoenix, Arizona 85002

### HEWLETT PACKARD

Hewlett Packard  
Cupertino Division  
11000 Wolfe Road  
Cupertino, California 95014

### HONEYWELL

Honeywell  
Computer Control Division  
Old Connecticut Path  
Framingham, Massachusetts 01701

### Honeywell

Electronic Data Processing Div.  
60 Walnut Street  
Wellesley Hills, Massachusetts 02181

### HUGHES

Hughes Aircraft Company  
Data Processing Products Division  
Fullerton, California 92634

### IBM

International Business Machines  
Corporation  
Data Processing Division  
112 East Post Road  
White Plains, New York 10600

### IDI

Information Displays, Inc.  
333 N. Bedford Road  
Mount Kisco, New York 01549

### INFORMATION INTERNATIONAL

Information International, Inc.  
545 Technology Square  
Cambridge, Massachusetts 02142

### INTERDATA

Interdata  
2 Crescent Place  
Oceanport, New Jersey 07757

### IRA

IRA Systems, Inc.  
332 Second Avenue  
Waltham, Massachusetts 02154

### ITT

International Telephone & Tele-  
graph Company  
Federal Laboratories  
3700 East Pontiac Street  
Fort Wayne, Indiana 46803

### LFE

Laboratory for Electronics, Inc.  
Electronics Division  
1075 Commonwealth Avenue  
Boston, Massachusetts 02215

### LSI

Lear Siegler, Inc.  
Electronic Instruments Division  
714 North Brookhurst Street  
Anaheim, California 92803

### LOCKHEED

Lockheed Electronics Company  
Data Products Division  
6201 East Randolph Street  
Los Angeles, California 90022

### MICRO-SYSTEMS

Micro-Systems, Inc.  
644 Young Street  
Santa Ana, California 92705

### MIDWESTERN

Midwestern Instruments, Inc.  
41st Street & Sheridan Road  
Tulsa, Oklahoma 74135

### MOHAWK DATA

Mohawk Data Sciences Corporation  
P.O. Box 630  
Palisade Street  
Herkimer, New York 13350

### MOTOROLA

Motorola Instrumentation  
and Control, Inc.  
3102 N. 56th Street  
Phoenix, Arizona

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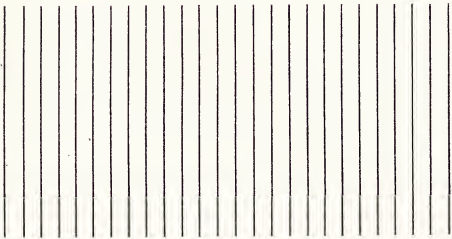
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